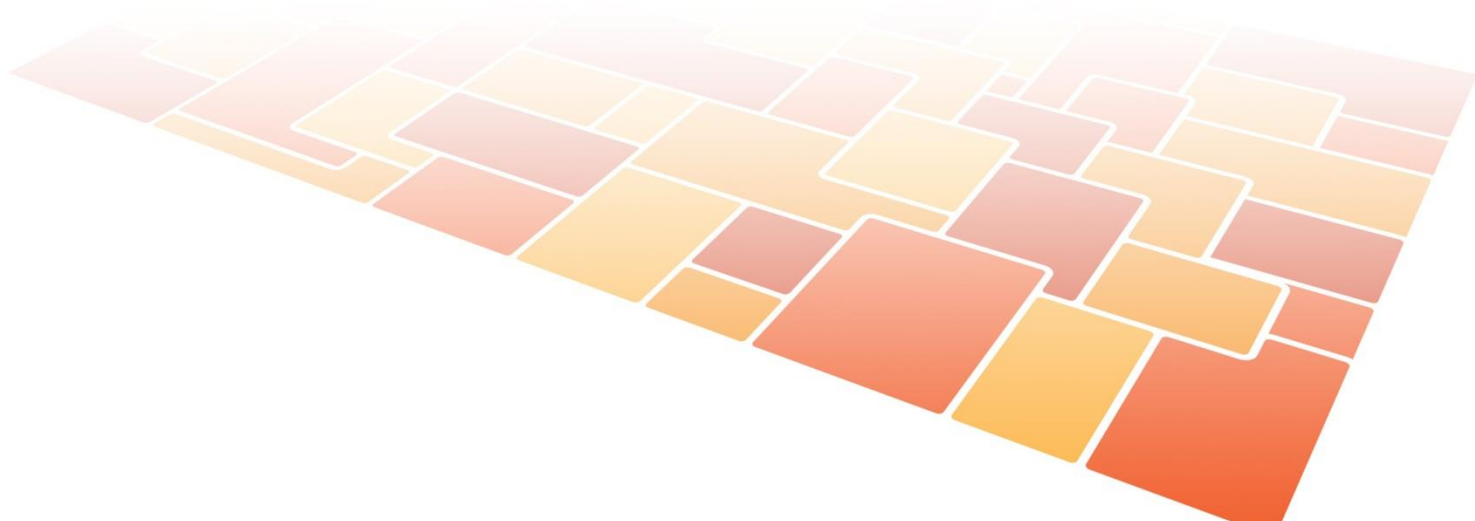


Missouri Health Gaps Report

What's driving health differences across the state and how can those gaps be closed?



Every year, **nearly 3,800 deaths in Missouri could be avoided** if all residents in the state had a fair chance to be healthy.

If residents of all counties in Missouri had the same opportunities for health, there could be:

243,000 fewer adult smokers

97,000 fewer adults who are obese

249,000 fewer adults who drink excessively

107,000 fewer people who are uninsured

79,000 more adults, ages 25-44, with some education beyond high school

47,000 fewer people who are unemployed

93,000 fewer children in poverty

21,000 fewer violent crimes

117,000 fewer households with severe housing problems

Introduction

Why is there so much difference in the health of residents in one county compared to other counties in the same state? In this report, the *County Health Rankings & Roadmaps* program explores how wide gaps are throughout Missouri and what is driving those differences.

This information can help Missouri state leaders as they identify ways for everyone to have a fair chance to lead the healthiest life possible. Specifically, this document can help state leaders understand:

1. What health gaps are and why they matter
2. The size and nature of the health gaps among counties within Missouri
3. What factors are influencing the health of residents, and
4. What state and local communities can do to address health gaps.

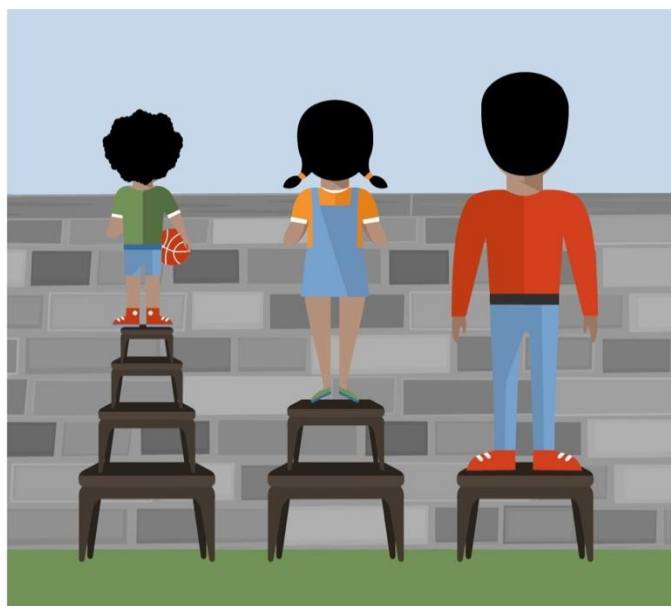
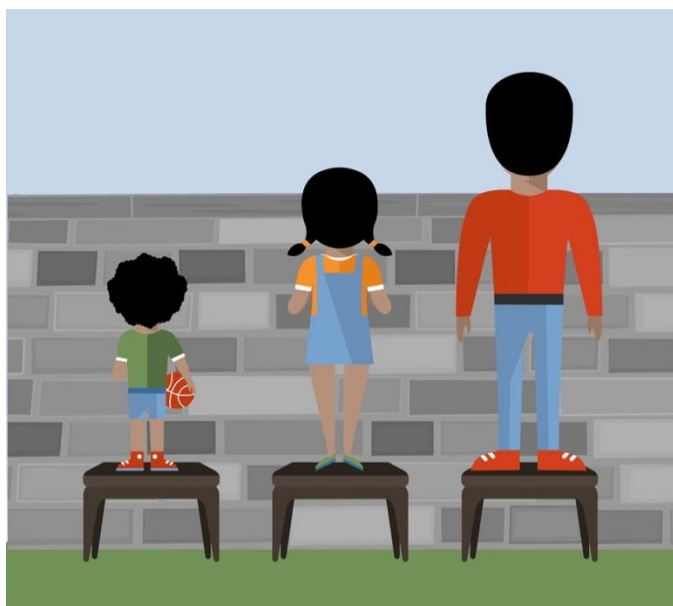
What are health gaps and why do they matter?

As a country, we have achieved significant health improvements over the past century. We have benefited from progress in automobile safety, better workplace standards, good schools and medical clinics, and reductions in smoking or infectious diseases. But when you look closer, within each state across the country—including Missouri—there are significant differences in health outcomes according to where people live, learn, work, and play. It is clear that not all Americans have the means and opportunity to be their healthiest.

Gaps in length and quality of life. Residents in one county are more likely to die prematurely or not be as healthy as residents in another county in the same state if they do not have the same kinds of opportunities to be their healthiest.

Gaps in the factors that influence health. Health is influenced by every aspect of how and where we live. Access to affordable housing, safe neighborhoods, job training programs and quality early childhood education are examples of important changes that can put people on a path to a healthier life even more than access to medical care. But access to these opportunities varies county to county. This limits choices and makes it hard to be healthy.

Poor health disproportionately burdens people who live in places that limit opportunities to live long and well. These gaps in health outcomes are costly and preventable. Gaps in health could be narrowed, if not eliminated, if we took steps to create more equitable opportunities. Improving education in counties that need it most is one example. That step and others can lead to higher incomes and more lifetime stability.



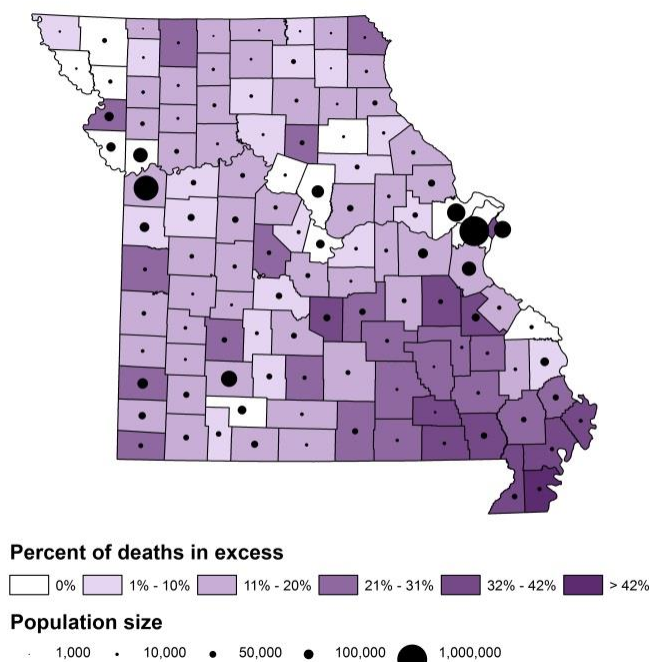
Giving everyone a fair chance to be healthy does not necessarily mean offering everyone the same resources to be healthy, but rather offering people specific resources necessary for their good health. For example, consider three children of different heights. Offering them all the same size bench to stand on would mean that shorter children do not have a fair chance to see over the wall. Offering each child a bench to stand on that is the right size for their height gives all children a fair chance to see over the wall.

Health gaps can exist in many dimensions—for residents across neighboring county lines, or between various groups within a community according to race, ethnicity, age, income, education or sexual orientation, among others. For this report, we focus on the gaps in opportunities for health that exist between counties within Missouri, and provide strategies to address factors that influence these differences.



How big are the gaps in health outcomes between counties within Missouri?

Every year, **nearly 3,800 deaths in Missouri could be avoided** if all residents in the state had a fair chance to be healthy.



Most of Missouri's 3,800 excess deaths tend to occur in counties with higher populations (such as St. Louis City and St. Francois). However, some counties with smaller populations also have a disproportionate share of avoidable lives lost. For example, over 49 percent of premature deaths in Pemiscot County could be avoided if Pemiscot residents had the opportunities of those in healthier counties (no shading).

Of course, population size is not the only factor that state leaders should take into account when selecting strategies to solve health gaps. We know that there are many factors that shape health. The next page of this report highlights factors state leaders may want to pay particular attention to as they work to improve health for all.

What do gaps in opportunities for health mean for people in Missouri?

If residents of all counties in Missouri had the same opportunities for health,* there could be:

- 243,000 fewer adult smokers
- 97,000 fewer adults who are obese
- 249,000 fewer adults who drink excessively
- 107,000 fewer people who are uninsured
- 79,000 more adults, ages 25-44, with some education beyond high school
- 47,000 fewer people who are unemployed
- 93,000 fewer children in poverty
- 21,000 fewer violent crimes
- 117,000 fewer households with severe housing problems

* see page 6

Highlighted health gaps in Missouri

Highlighted measures (→) indicate *meaningful gaps* that policymakers and leaders may want to examine more closely. We define *meaningful gaps* as those that are noteworthy or statistically different from a state or U.S. value for factors that have the greatest influence on health (e.g., social and economic factors have a greater influence than clinical care). The best and worst counties represent the top and bottom 10% of county-level values for a given measure in the state or the U.S., respectively.

HEALTH FACTORS	Best MO Counties	Worst MO Counties	MO Mean	Best US Counties
Health Behaviors				
→ Adult smoking: adults who are current smokers	17%	34%	23%	14%
→ Adult obesity: adults that report a BMI of 30 or more	29%	35%	31%	25%
Food environment index: access to healthy food and food insecurity	7.8	6.1	7.0	8.4
Physical inactivity: adults reporting no leisure-time physical activity	26%	34%	26%	20%
Access to exercise opportunities: adequate access to locations for physical activity	78%	29%	77%	92%
Excessive drinking: adults reporting binge or heavy drinking	12%	22%	17%	10%
→ Alcohol-impaired driving deaths: driving deaths with alcohol involvement	17%	50%	35%	14%
Sexually transmitted infections: newly diagnosed chlamydia cases per 100,000 population	103	481	462	138
Teen births: births per 1,000 females ages 15-19	25	64	40	20
Clinical Care				
Uninsured: population under age 65 without health insurance	15%	21%	16%	11%
Primary care physicians: ratio of population to primary care physicians	1,167:1	8,233:1	1,439:1	1,039:1
Dentists: ratio of population to dentists	1,764:1	7,824:1	1,920:1	1,362:1
Mental health providers: ratio of population to mental health providers	466:1	4,123:1	632:1	383:1
Preventable hospital stays: hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	50	98	65	41
Diabetic monitoring: diabetic Medicare enrollees, ages 65-75, that receive HbA1c monitoring	89%	81%	86%	90%
Mammography screening: female Medicare enrollees, ages 67-69, that receive mammography screening	66%	49%	62%	71%

HEALTH FACTORS	Best MO Counties	Worst MO Counties	MO Mean	Best US Counties
Social & Economic Factors				
High school graduation: ninth-grade cohort that graduates in 4 years	93%	83%	86%	93%
Some college: adults ages 25-44 with some post-secondary education	65%	41%	64%	71%
→ Unemployment: population 16+ that are unemployed but seeking work	5%	8%	7%	4%
→ Children in poverty: children under age 18 living in poverty	17%	39%	22%	13%
Income inequality: ratio of 80 th /20 th percentile of income	3.6	4.8	4.6	3.7
Children in single-parent households: children that live in a household headed by a single parent	22%	39%	34%	20%
Social associations: social associations per 10,000 population	21	9	12	22
→ Violent crime: violent crime offenses per 100,000 population	97	421	452	59
Injury deaths: deaths due to injury per 100,000 population	56	102	74	50
Physical Environment				
Air pollution: average daily density ($\mu\text{g}/\text{m}^3$) of fine particulate matter (2.5)	8.8	11.9	10.2	9.5
Drinking water violations: population potentially exposed to water exceeding violation limit during past year	0%	36%	4%	0%
Severe housing problems: households with ≥ 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen or plumbing facilities	9%	16%	14%	9%
Driving alone to work: workforce that drives alone to work	74%	84%	81%	71%
→ Long commute - driving alone: among workers who commute in their car alone, those that commute more than 30 minutes	17%	46%	30%	15%



What can be done to help close gaps in Missouri?

Here are some examples of evidence-informed strategies to improve the above highlighted health factors:

→ Tobacco Use (Adult smoking)

- Proactive tobacco quitlines Deliver phone-based behavioral counseling and follow-up for tobacco users who want to quit
- Smoke-free policies for indoor areas Implement private sector rules or public sector regulations that prohibit smoking or restrict it to designated areas
- Tobacco marketing Limit the pricing, flavoring, placement, or promotion of tobacco products via regulation
- Tobacco pricing Increase tobacco per unit prices through taxes or point-of-sale fees

→ Diet and Exercise (Adult obesity)

- Access to places for physical activity Modify local environments to support physical activity, increase access to new or existing facilities for physical activity, or build new facilities
- Healthy food in convenience stores Encourage convenience stores, corner stores, or gas station markets to carry fresh produce and other healthier food options
- Land use zoning regulations Use zoning regulations to address elements important to physical activity such as street continuity and connectivity, residential density, and proximity of residential areas to businesses, schools, and recreation
- School breakfast programs Support programs to provide students with a nutritious breakfast, in the cafeteria, from grab and go carts in hallways, or in classrooms

→ Alcohol and Drug Use (Alcohol-impaired driving deaths)

- Alcohol excise tax Regularly adjust taxes levied for beer, wine, and liquor purchases
- Alcohol outlet density Reduce density of

alcohol beverage outlets (i.e., places that sell alcohol) or limit increases in the density of such outlets via regulatory authority

- Alcohol screening and brief intervention Identify persons with harmful alcohol consumption before consequences become pronounced and motivate them to address their alcohol problems
- Ignition interlock devices Strengthen policies mandating that ignition interlock devices be installed in vehicles to prevent operation by a driver with a blood alcohol concentration above a specified level

→ Employment (Unemployment)

- Unemployment insurance Extend or raise the compensation provided to eligible, unemployed workers looking for jobs
- Vocational training for adults Support acquisition of job-specific skills through education, certification programs, or on-the-job training

→ Income (Children in poverty)

- Earned income tax credits Look for ways to expand various earned income tax credits for low to moderate income working individuals and families
- Funding for child care subsidy Increase financial assistance to working parents or parents attending school to pay for center-based or certified in-home child care
- Living wage laws Establish locally or state mandated wages that are higher than federal minimum wage levels
- Paid family leave Provide employees with paid time off for circumstances such as a recent birth or adoption, a parent or spouse with a serious medical condition, or a sick child

➔ Community Safety (Violent crime)

- Focused deterrence strategies Coordinate law enforcement and community agencies' implementation of focused deterrence strategies (pulling levers) to target particular crimes
- Neighborhood watch Support the efforts of neighborhood residents to work together in addressing local crime and reporting suspicious or potentially criminal behavior
- Restorative justice Develop interventions for victims and offenders focused on repairing the harm a crime caused and collectively determining offender reparations

➔ Housing and Transit (Long commute - driving alone)

- Mixed-use development Support a combination of land uses (e.g., residential, commercial, recreational) in development initiatives, often through zoning regulations

- Public transportation systems Support transportation options that are available to the general public and run on a scheduled timetable (e.g., buses, trains, ferries, rapid transit, etc.)
- Streetscape design Enhance streetscapes with greater sidewalk coverage and walkway connectivity, street crossing safety features, traffic calming measures, and other design elements.

Visit *What Works for Health* at countyhealthrankings.org/what-works-for-health for information on these and other strategies to improve health in Missouri.

Choosing strategies that work

Taking time to choose policies and programs that have been shown to work in real life and that are a good fit for your state will maximize the chances of success. Focusing on policy, systems, and environmental changes – or implementing programs in a broad, systematic way – can lead to the most substantial improvements over time.

The strategies listed above are among many resources in *What Works for Health*, a searchable database of policies or programs that have worked in other places or are recommended by unbiased experts.

How have states and local communities taken action?

The approach to reducing health gaps is not 'one size fits all.' Each state and community has different assets and opportunities they can use.

Many communities across the U.S. are already addressing health gaps and building a Culture of Health. States and local communities have improved health by taking action and making changes. Just look at community revitalization efforts, the expansion of education programs that empower young people, and local and state economic development.

For more detailed tools and guidance on how to improve health for all, visit the **Roadmaps to Health Action Center**:
www.countyhealthrankings.org/roadmaps/action-center

Robert Wood Johnson Foundation Culture of Health Prize

State and local efforts can harness the collective power of leaders, partners, and community members to provide everyone with opportunities for better health. The 2015 *RWJF Culture of Health Prize* winners are prime examples of making this a reality. Here are links to examples of how these communities are cultivating a shared belief in good health for all:

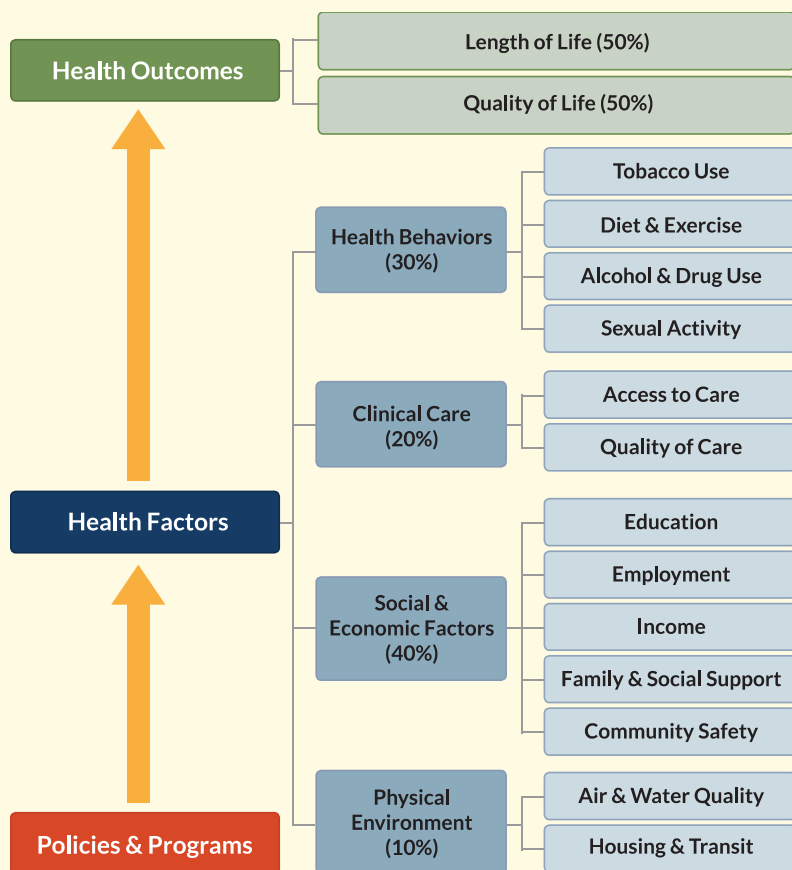
- [Bridgeport, Connecticut](#)
- [Bronx, New York](#)
- [Everett, Massachusetts](#)
- [Kansas City, Missouri](#)
- [Lawrence, Massachusetts](#)
- [Menominee Nation, Wisconsin](#)
- [Spartanburg County, South Carolina](#)
- [Waaswaaganing Anishinaabeg \(Lac du Flambeau Tribe\), Wisconsin](#)



About County Health Rankings & Roadmaps

The *County Health Rankings & Roadmaps* program brings actionable data and strategies to communities to make it easier for people to be healthy in their neighborhoods, schools, and workplaces. Ranking the health of nearly every county in the nation, the *County Health Rankings* illustrate **what we know** when it comes to what is keeping people healthy or making them sick. The *Roadmaps* show **what we can do** to create healthier places to live, learn, work, and play. The Robert Wood Johnson Foundation (RWJF) collaborates with the University of Wisconsin Population Health Institute (UWPHI) to bring this program to cities, counties, and states across the nation.

Visit the *County Health Rankings & Roadmaps* website at www.countyhealthrankings.org to learn more about the *Rankings*, the health gaps for each state, and how you can take action in your community.



County Health Rankings model © 2014 UWPHI

How did we measure excess deaths?

Excess deaths were estimated using two measures: population size and the difference in premature mortality risk between the county's age-adjusted mortality rate and the rate for the top performing 10% of counties within each state or region (for states with fewer, less populated counties). Premature deaths were considered those that occurred before the age of 75. Mortality rates were calculated using [CDC WONDER](#) data for 2011-2013. For each county, we examined the difference in mortality rates and then applied this risk difference to the county's population to estimate the number of excess deaths. To estimate the total for each state, the number of excess deaths was tallied for each county within the state.

This approach considers both the magnitude of the gap in mortality rates and the population living with that rate. So, if two communities had the same mortality risk gap, more excess deaths would be observed in the community with the larger population. Similarly, if two communities had the same population size, more excess deaths would be observed in the community with the greatest gap in mortality risk.

How did we identify health factors to improve?

County Health Rankings data can help to identify factors with meaningful differences across counties. Accounting for the relative influence of various factors on health outcomes, a range of techniques were used to identify those factors that seem to have the greatest potential opportunity for improvement. We identified measures where there are meaningful differences between the state's or poor performing counties' value and that of a U.S. or state reference value for the factor. Meaningful differences indicate that for a given state, the magnitude of the difference is consequential and/or statistically significant compared to this reference value.

Credits

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